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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,026	03/18/2004	Yukihito Ichikawa	119151	5611
25944	7590	05/25/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER MENON, KRISHNAN S	
			ART UNIT 1723	PAPER NUMBER
			MAIL DATE 05/25/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/803,026	ICHIKAWA, YUKIHITO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Krishnan S. Menon	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 28-39 is/are pending in the application.
- 4a) Of the above claim(s) 32-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Claims 28-39 are pending in the amendment of 4/24/07. Claims 32-39 are withdrawn from consideration.

#### ***Election/Restrictions***

Claims 32-39 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: they were originally restricted as directed to a different invention/species.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 32-39 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

However, these claims, since depending from the independent claim 28, could be rejoined if claim 28 becomes allowable.

Applicant's arguments (4/24/07) traversing the restriction were considered. However, they are not persuasive. Applicant made an election in the original restriction requirement with traverse; however, traversal was on the ground that there is no serious burden to examine all the claims. Applicant's new argument that the additional features in claims 32-34 and 36 are not mutually exclusive from features recited in any other claims is not persuasive. This does not mean that the additional features recited does not require search and consideration to determine the patentability of these claims

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based on the additional features; such search and consideration adds further burden on the examiner. The added subject matter belongs to different class and subclass.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 28-31 are rejected under 35 U.S.C. 102(b) as anticipated by, or under 35 USC 103(a) as being obvious over, Guile et al (US 5,716,899)

Guile teaches measuring adsorption of a hydrocarbon (propylene) in a honeycomb structure by passing (or “feeding”) the gas stream over the sample in a tube – see column 13 line 63 – column 14 line 20. Pressure is implied: passing a gas stream requires a driving force, such as pressure. The hydrocarbon is then analyzed in the exiting gas stream to determine the amount absorbed over a specified period of time.

Calculating said value relating to said water absorption ability, and recording it is implied in the reference. One needs to calculate the adsorption ability from the data collected; and one would record the collected data and calculated value for future reference. Calculating “said value” relating to water vapor adsorption ability is based on assumption that hydrocarbon adsorption is the same as, or related to, water vapor adsorption; such an assumption is not an tangible process step: one could assume whatever one wants, which cannot be taken as a patentable process step.

“Diesel particulate filter” is an intended use of the filter; not a patentable limitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 28-30 are rejected under 35 USC 103(a) as being unpatentable over, Dahlgren et al (US 6,143,058).

Dahlgren teaches a method of measuring water vapor (or steam with air as in applicant's claim 3) **adsorption** on a porous cell structure (abstract) using a balance and a temperature and humidity controlled chamber – see column 12 lines 1-47.

Regarding “feeding” a material such as “steam”, Applicant's disclosure in paragraph 0044 of the Pre-Grant Publication reads “steam-containing air”. The reference teaches a humidity chamber, the humidity in the chamber is inherently maintained by feeding moisture (or vapor or “steam”) laden air into it, or such feeding is implied. “[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976). Therefore, if “feeding” is not anticipated, it would be at least obvious

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to one of ordinary skill in the art. Such feeding would require some pressure to drive the gases through to the chamber. Please note that applicant has not specified any value to the "pressure". Moreover, feeding under pressure is not expected to change the adsorption characteristic of water vapor on the surface, because neither the particle size of "steam" nor the surface area of the adsorbent is expected to change with pressure.

"Diesel particulate filter" is only an intended use of the honeycomb filter, and is not a patentable limitation in this claim of determining a property/characteristic of the filter. With respect to the "honeycomb filter", the reference does not specifically state that the filter tested has honeycomb structure. However, it teaches an adsorbent filter; honeycomb only providing a geometrical structure, which is not critical to the method claimed. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of the reference to determine the water adsorption capacity of a filter having a honeycomb structure.

3. Claims 28-30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chang (US 2002/0025290).

Chang teaches a method of measuring adsorption of CO<sub>2</sub> and water vapor (which is same as steam used by applicant) over an adsorbent – see examples 29 and 30. The CO<sub>2</sub> and water vapor streams are in air, the reference teaches complete adsorption and breakthrough, meaning that the excess water vapor and CO<sub>2</sub> are blown out by the gas stream, which is implied by, or inherent in, the reference. See the breakthrough curves. The reference teaches complete absorption at the point of

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breakthrough without excess water/CO<sub>2</sub> filling the pores. A *prima facie* case under 35 U.S.C. 102 /103 could be made if a process step is inherent: *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also *In re Grasselli*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983). "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968); *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976).

Regarding the porous cell structure, the reference teaches similar material in the form of pellets – it is porous.

Chang does not teach a honeycomb structure for the molecular sieve. However, such structure is only a geometrical shape, and is not a patentable limitation in the method of determining adsorption characteristics. It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of Chang to determine the adsorption characteristics of honeycomb structures and diesel particulate filters as well.

### ***Response to Arguments***

Applicant's arguments filed 4/24/07 have been fully considered but they are not persuasive. They are addressed in the rejection.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "KS Menon", followed by the date "5/21/07" written in a similar cursive style.

Krishnan S Menon  
Primary Examiner  
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